Taylor Fire
Emergency Stabilization and Rehabilitation Plans
Environmental Assessment,
Elko County, Nevada
BLM/EK/PL-2006/024

Prepared by:
Department of Interior-Burned Area Emergency Response Team

For Submission to:
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Elko Field Office

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CHAPTER 1.0 - Purpose and Need for Action

A. BRIEF DESCRIPTION OF PROPOSED ACTION

The Taylor Fire was ignited by lightning on July 27, 2006 and burned 798 acres of Bureau of Land Management (BLM) managed public lands, 3,713 acres of Private land and 3 acres of US Forest Service land by the time it was contained on August 3, 2006. This fire was located in Elko County, Nevada. The Department of Interior (DOI) ordered a National Interagency Burned Area Emergency Response (BAER) Team to assess the damage to BLM lands managed by the Elko and Winnemucca Field Offices and prepare an Emergency Stabilization (ES) Plan. The Field Office would prepare the Burned Area Rehabilitation (BAR) Plan. See Chapter 2.0 for a detailed description of the proposed actions (specifications) for the Taylor Fire ES Plan.

All projects proposed in the ES Plan that are prescribed, funded, or implemented by Federal agencies on Federal, State, or private lands are subject to compliance with the *National Environmental Policy Act* (NEPA) in accordance with the guidelines provided by the *Council on Environmental Quality (CEQ) Regulations (40 CFR 1500-1508)*. This Environmental Assessment (EA) has been developed in accordance with BLM specific guidelines. Emergency stabilization and rehabilitation actions proposed on BLM lands, involving the agency's permitting, funding, or implementation, must comply with regulations set forth in the *Department of the Interior Manual Part 516 (DM 12),*and policies described in *BLM Handbook H-1742-1*.

The Proposed Action includes the following treatments previously analyzed and mitigated in the FY2000 Normal Fire Rehabilitation Plan Environmental Assessment Treatments: 1) Grazing Closure, 2) Planting of Multiple Species Seed Mixtures, 3) Planting of Native Shrub or Tree Seedlings, 8) Invasive, Nonnative Weed Control, 9) Site Preparation Treatments, and 10) Cultural resource site stabilization and protection.

B. PURPOSE AND NEED FOR ACTION

The purpose of this ES Plan is to determine the need for and to prescribe and implement emergency treatments (specifications) to minimize threats to life or property or to stabilize and prevent further unacceptable degradation to natural and cultural resources resulting from the effects of a fire.

C. PROJECT AREA DESCRIPTION

The Taylor fire occurred in the northwestern part of Elko County, Nevada in the Southern Owyhee High Plateau. Elevations within the burned areas ranged from 5,838 feet (1,780 meters) to 7,820 feet (2,384 meters) above mean sea level. The legal description in the Mount Diablo Baseline & Meridian for the Taylor Fire is:

Township 39N, Range 52E, Sections 1-3, 10-14, 23, 24
Township 39N, Range 53E, Sections 6, 7, 18, 19
Township 39N, Range 52½ E, Sections 1, 12, 13, 24
Township 40N, Range 52E, Section 36
Township 40N, Range 53E, Section 31

D. CONFORMANCE WITH APPLICABLE LAND USE PLANS

The proposed action conforms to the 1987 Elko Resource Management Plan (RMP), as it was amended for fire management on September 29, 2004. The decision for fire rehabilitation from the Approved Fire Management Amendment, page 20, is to "Conduct fire rehabilitation activities to emulate historic or pre-fire ecosystem structure, functioning, diversity and/or to restore a healthy stable ecosystem." The proposed action is consistent with resource objectives of the plan and with other Federal, state, local and tribal laws, regulations, policies and plans to the maximum extent possible.

This EA tiers to the Elko and Wells Resource Management Plans Fire Management Amendment Environmental Assessment (BLM/EK/PL-2003/026) that was completed in 2003 and the FY2000 Normal Fire Rehabilitation Plan Environmental Assessment (BLM/EK/PL-2000/037), which was completed to update and replace the FY93 Normal Fire Rehabilitation Environmental Assessment (EA-NV-010-92-060). These EA's analyze the wide range of treatments utilized by the BLM, Elko Field Office, for emergency stabilization and rehabilitation activities on public lands. The proposed treatments for emergency stabilization and rehabilitation are consistent with the treatments described in the above two EAs and associated Findings of No Significant Impact. The general description and impact analysis of the emergency stabilization and rehabilitation treatments is also described in these EAs.

Proposed treatments for invasive non-native species are consistent with the methods described and evaluated in the Vegetation Treatment on BLM Lands in Thirteen Western States, Final Environmental Impact Statement (FEIS) and Record of Decision and the Programmatic Environmental Assessment of Integrated Weed Management on Bureau of Land Management Lands (BLM/EK/PL-98/008) for the Elko Field Office and Finding of No Significant Impact.

E. APPLICABLE LAWS AND EXECUTIVE ORDERS

This section documents consideration given to the requirements of specific environmental laws in the development of the Taylor Fire ES and BAR Plans. Specific consultations initiated or completed during development and implementation of this plan are also documented. The following executive orders and legislative acts have been reviewed as they apply to the Taylor Fire ES and BAR Plans.

1. **National Historic Preservation Act (**16 U.S.C. 470**).** The BAER Team Cultural Resources Specialists have contacted the Nevada State Historic Preservation Office (SHPO) regarding activities proposed within the Taylor Fire Emergency Stabilization Plan.

2. **Executive Order 11988, Floodplain Management.** All proposed treatments are in compliance with this order.

3. **Executive Order 11990, Protection of Wetlands.** All proposed treatments are in compliance with this order.

4. **Executive Order 12372, Intergovernmental Review.** Coordination and consultation is ongoing with affected Tribes, Federal, and local agencies. A copy of the plan will be disseminated to all affected agencies.

5. **Executive Order 12892, Federal actions to address Environmental Justice in Minority and Low-Income Populations**. All Federal actions must address and identify, as appropriate, disproportionately high and adverse human health or low-income populations, and Indian Tribes in the United States, The BAER Team has determined that the actions proposed in this plan would result in no adverse human health or environmental effects for minority or low-income populations and Indian Tribes.

6. **Executive Order 13112, Invasive Species.** To prevent the introduction of invasive species and provide for their control, and to minimize the economic, ecological and human health impacts that invasive species cause.

7. **Endangered Species Act** (16 U.S.C. 1531-1544, 87 Stat. 884)**.** The BAER Team wildlife biologist and vegetation specialists have consulted with the U.S. Fish and Wildlife Service regarding actions proposed in this plan and potential effects on state and federally listed species and have determined that there is no effect. The Field Offices are responsible for continued consultations during plan implementation.

8. **Clean Water Act.** All proposed treatments are in compliance with this Act (33 U.S.C. 1251 - 1376; Chapter 758; P.L. 845, June 30, 1948; 62 Stat. 1155). Long-term impacts are considered beneficial to water quality.

9. **Clean Air Act.** Federal Ambient Air Quality Primary and Secondary Standards are provided by the National Ambient Air Quality Standards, as established by the U.S. Environmental Protection agency (EPA) (Clean Air Act, 42 U.S.C. 7470, et seq., as amended). The BAER Team has determined that treatments prescribed in the Taylor Fire area would have short-term minor impacts to air quality that would not differ significantly from routine land use practices for the area. The treatments proposed in this plan would have long-term beneficial affect on air quality.

F. ISSUES CONSIDERED

During the initial agency briefing meeting with the DOI Interagency BAER Team on August 5, 2006, the Elko Field Office and the Winnemucca Field Office identified the following biological, cultural, and other environmental resources issues potentially affected by the fires and/or suppression activities:

Human Health and Safety
- Dust
- Road Conditions
- Minor Facilities
- Mine Access

Soil/Watershed Stabilization
- Burn Severity

T&E/Special Status Species Habitat Stabilization/Recovery
- Red-band Trout (BLM sensitive)
- Columbia Spotted Frog (TESC *candidate*)
- Riparian Habitat Recovery
- Sage Grouse Habitat Recovery (BLM Sensitive)
- Big Game Species Habitat Recovery

Invasive Plants/Vegetation Management
- Grazing Allotment Management
- Fence and Range Improvement
- Vegetation Mortality
- Noxious Weed Control
- Suppression Impacts

All of the above mentioned issues are addressed in specifications (found in Part F) and/or management recommendations (found in the Resource Assessments, Appendix I). The Proposed Action is to implement the treatments as described in the specifications (Part F). The table below shows how the major issue categories are related to the resource areas and treatment specifications.

Table 1 Issues, Resources, and Specifications

Major Issue Category	Resource Areas	Treatment Specification Numbers
Human Health and Safety	Air Quality, Soil, Watershed/Hydrology, Recreation, Range	5
Soil and Water Stabilization	Air Quality, Soil, Watershed/Hydrology, Vegetation, Wildlife, Fisheries, Range	N/A
Special Status Species	Wildlife, Migratory Birds, Watershed/Hydrology, Vegetation	N/A
Cultural Resources	Cultural Resources	N/A
Invasive Species and Vegetation Management	Vegetation, Soil, Wildlife, Fisheries, Range, Visual Resource Quality	3,4,6,7,8,15

CHAPTER 2.0 – Proposed Action and Alternative

A. ALTERNATIVE I – NO ACTION

Under the NEPA required alternative of No Action, the BLM would choose not to implement the proposed treatments in the Emergency Stabilization and Rehabilitation Plans. All natural resources would be left to the process of natural rehabilitation.

B. ALTERNATIVE II – IMPLEMENTATION OF TREATMENT SPECIFICATIONS (PROPOSED ACTION)

This alternative would allow the BLM to proceed with implementation of specifications to mitigate the effects of the Taylor Fire. Each treatment is discussed in detail in the Emergency Stabilization and Rehabilitation Plans. The proposed treatment specifications include:

Planting of Multiple Species Seed Mixtures
Broadcast mountain big sagebrush, basin big sagebrush, bluebunch wheatgrass and western yarrow seed on approximately 200 acres. This seed would be applied on swales, draws and ephemeral drainage areas throughout the burn area that were pre-burn big sagebrush sites. Treatment would be completed using a helicopter and seed broadcaster. Seed would be applied when weather conditions are favorable to allow for coverage by snow or adequate moisture, and thus would be applied in late fall or early winter.

Antelope Bitterbrush Seeding/Seedling Planting
In the event that bitterbrush recruitment from seed or young to mature age class plant re-sprouting is not observed through monitoring by Spring 2008*, areas on the burn would be considered for seeding or seedling plantings. The entire public lands portion has ecological sites with bitterbrush as a vegetative component. Methods considered for establishing bitterbrush include, but are not limited to, hand-seeding, mechanical (e.g. drill-seeding or Hansen Seed Dribbler) seeding, and planting and protection of bare root stock or container stock. Seeding will be considered at equivalent of 3.0 Pure Live Seed pounds/acre equivalent.

Protective Fence – Permanent
Reconstruct/repair federally owned protective fences on approximately 2.5 miles burned by the Taylor Fire. Burned fence materials, including wire, would be removed. Fences would be used to protect seeded areas or areas managed for natural recovery from livestock grazing. Fences are to be established on original fence line locations. Detailed specifications, including proposed locations, shall be addressed in the BAR Plan.

Protective Fence – Temporary

Construct new temporary fences to protect burned areas on the Taylor Fire. The 3.5 miles of fence are necessary to prevent grazing by livestock on burned areas needing grazing rest or to protect recovering sensitive species. All temporary protective fences would tie into existing fences or natural barriers. Fences are to be established along the fire perimeter where no previous fence existed, and where exclosure is needed to protect recovering sites. Detailed specifications, including proposed locations, shall be addressed in the BAR Plan.

Noxious Weed Treatment
This treatment would provide for control of known non-native weed infestations within the Taylor Fire perimeter prior to seed-set and maturation. Control of these Nevada Listed noxious weeds needs to be conducted or they will spread into non-infested areas of the burn. Integrated pest management techniques (herbicides, biological, mechanical, and cultural control methods) would be used as appropriate to prevent the spread and establishment of noxious weeds within the fire area. No cost was developed for possible hand grubbing of weeds since so few weeds would be treated in this manner, and grubbing would occur in association with spraying. See Vegetation Treatments – Weeds Map, Appendix IV for proposed ES Plan locations.

Noxious Weed Detection
Conduct noxious weed detection surveys for possible invasion of noxious weeds on roads, hand lines, dozer lines, and other disturbed areas within the Taylor Fire perimeter. Monitor existing noxious weed infestations within the burned area to determine if expansion is occurring into non-infested areas. An inventory would be conducted for noxious weeds near existing locations and in areas that have a high probability for invasion within the burned area. See Vegetation Treatments - Weeds Map, Appendix IV for proposed ES Plan locations.

Facilities – Sign Installation
Two rockfall hazard signs will be installed on State Highway 226 on both sides of the Taylor Fire. Installation of warning signs is essential to public health and safety. These signs are necessary to inform the public of immediate danger posed by rock fall along the highway.

Monitoring Effectiveness
Areas within the Taylor Fire burned from low soil burn severity to high, with considerable unburned islands creating a mosaic effect throughout the burned area. The BAER Team vegetation and watershed groups, in consultation with the range and natural resource staff of the Elko Field Office, have recommended treatments to detect and treat noxious weeds. Monitor relic aspen stands for post fire regeneration and impacts from grazing and wildlife. A resource specialist from the Field Office would provide program oversight for this specification.

Grazing Closure
Livestock grazing would be removed from the burned area in order to allow the burned and seeded vegetation to successfully establish. The closure would occur for a minimum of two growing seasons or until establishment objectives are met, in order to provide an adequate amount of time to allow the seeded vegetation to establish and plant species not damaged by the wildfire to respond to natural revegetation. The burned area would be reopened to livestock grazing once the establishment objectives in the Fire Closure Agreement/Decision have been met.

Post-fire grazing management, including the period of time needed for closure, would be determined based on coordination, cooperation, and consultation with the interested public, monitoring, and achievement of site specific resource objectives.

CHAPTER 3.0 - Affected Environment

This chapter describes environmental and cultural components potentially affected by the implementation of this ES Plan. More in depth and detailed information of these components can be found in the Resource Assessments (Appendix I) of this ES Plan.

The following critical elements of the human environment are not present or are not affected by the proposed action or alternative in this Environmental Assessment:

- Areas of Critical Environmental Concern/Special Management Areas
- Cultural Resources
- Environmental Justice
- Farmlands (Prime or Unique)
- Socio-economics
- Wastes (Solid or Hazardous)
- Water Quality (Ground Water)
- Wild and Scenic Rivers
- Wild Horse Management
- Wilderness

Critical elements and resources brought forward for analysis:

A. SOILS

Geology and soil information are from the Nevada Bureau of Mines and Geology (http://www.nbmg.unr.edu/) and Soil Survey of Elko County Area, Nevada, Parts of Elko and Eureka Counties (USDA 1997) and field observations made 8/5/2006-8/15/2006.

The eastern portion of the fire, including all of Starvation Canyon, is characterized by steep mountainous terrain formed primarily from paleozoic volcanic and metasedimentary rocks. Soils are moderately deep to deep and very gravelly with loamy surface textures. Dominant soil series mapped in the canyons include Sumine, Tusel on the ridges and sideslopes and Hapgood on the toe slopes. Potential erosion hazard is considered very severe, although susceptibility to damage by fire is considered to be moderate, primarily due to natural rock armoring of the surface soils.

The western portion of the fire is characterized by alluvial fans, stream terraces and floodplains, forming in more recent alluvium from volcanic rocks, welded tuffs and ash. Dominant soil series include Cotant, Quarz, and Ninemile on hillsides and Donna and Stampede series on older alluvial fan remnants in the westernmost portion of the fire area. These soils are shallow to deep and vary greatly in rock fragments. Soils and hillslopes dominated by low sage are shallow to moderately deep, extremely rocky and generally have a hardpan or root limiting layer. Erosion hazard is generally slight on upper portions of fans, while on the steeper slopes it may be considered moderate. Susceptibility to damage from fire is considered slight. Toeslopes, river terraces and floodplain soils tend to be deep with fewer surface coarse fragments and finer textures. Field observations indicated that some of these finer textured terrace soils have evidence of moderate to severe compaction, which may lead to increases in runoff.

Only minor amounts of soil biological crusts were observed in the unburned areas. They were rolling crust dominated by early successional communities of cyanobacteria and mosses, found in protected areas under sagebrush plants. Lichen crusts were not observed. Surface biological crust cover was generally less than 5%. Physical crusting was common especially in the interstices between shrubs in the less rocky areas. In areas where vegetation canopy was burned, biological crusts were also mostly consumed, and/or covered with ash. Biological crusts in unburned islands and areas with low vegetation mortality appear to be similar to areas outside of the fire. Unburned islands were present throughout the burned area and should serve as propagating source areas for the recovery of cyanobacteria and mosses, aiding in soil stabilization.

B. AIR QUALITY

Air quality in and around the Taylor Fire is generally considered good. It is designated as unclassified for all criteria pollutants, and thus is considered to be in attainment with the National Ambient Air Quality Standards (NAAQS). None of the areas being proposed for emergency stabilization and/or rehabilitation fall within a non-attainment area. The nearest Class I, Prevention of Significant Deterioration Area, is the Jarbidge Wilderness Area, approximately 37 miles to the northeast.

There are localized occurrences of dust caused by high winds, vehicular traffic, and construction activities. Smoke emissions from local fires sometimes cause short term reduction in visibility and fire fighting activities using mechanized equipment can produce dust.

C. WATER QUALITY

Ground water quality is not affected by the proposed action. Therefore it will not be addressed in this document. Surface water quality and wetlands, riparian zones and floodplains are potentially affected and will be addressed.

Surface
The major drainages within the fire area are Thomas Jose Canyon, Badger Creek, and Starvation Canyon. These creeks drain into Taylor Creek. There are no Lahontan Cutthroat Trout streams within or near the fire. Additionally, there are several small seeps and springs within the burned area. Highest discharge for these springs occurs during the wet, late winter and spring months with lowest discharge during the summer months. The springs are small, generally flowing less than five gallons per minute.

Wetlands/Riparian Zones/Floodplains
Wetlands and riparian areas occur in the area affected by the fire. Besides scattered stands of aspen, these areas are primarily associated with perennial streams, springs, seeps and small meadows. Intermittent or partially intermittent drainages support scattered to dense riparian communities. Dominant riparian/wetland species include a variety of willow species (*Salix* spp.), sedges (*Carex* spp.), rushes (*Juncus* and Scirpus spp.), and a variety of grasses and forbs. Floodplains are associated with the streams and springs throughout the area affected by the fire.

D. VEGETATION

The vegetation communities within the Taylor Fire contain significant physical and biological diversity that provide valuable wildlife habitat, watershed protection, and livestock forage. Past land management practices have shaped the plant community composition in the northeastern portion of Nevada.

Plant Communities
The following vegetation communities occur within or adjacent to the fire perimeter:

1. Sagebrush Dominated Communities

Those areas dominated by Sagebrush (*Artemesia tridentata*) are included in this group. A variety of perennial grasses occur within sagebrush dominated sites. This vegetation type occurs both within basins and in mountainous areas.

A. Intermountain Basins Big Sagebrush Shrubland

This type is dominated by Basin Big Sagebrush (*Artemesia tridentata var. tridentata*) or Wyoming Big Sagebrush (*Artemesia tridentata var. wyomingensis*). Other shrubs that are present but not dominant include Rubber Rabbitbrush (*Ericameria nauseosa*), Antelope Bitterbrush (*Purshia tridentata*), Black Greasewood (*Sarcobatus vermiculatis)* and *Atriplex spp.* Perennial herbaceous species make up less than 25% cover. Grass Species include Indian ricegrass (*Achnatherum hymenoides*), Idaho Fescue (*Festuca idahoensis*), Needle-and-Thread (*Hesperostipa comata*), Great Basin Wild Rye (*Leymus cinereus*), Western wheatgrass (*Pascopyrum smithii*), and

Sandberg's bluegrass (*Poa secunda*).

B. Great Basin Xeric Sagebrush Shrubland

These communities occur on dry sites often with rocky, shallow soils typical of alluvial fans and bajadas. Dwarf shrubs are common on these sites. At lower elevations they are often dominated by Black Sagebrush (*Artemesia nova*) and on higher sites and exposed ridges by Low Sagebrush (*Artemesia arbuscula*). Other common shrubs include Wyoming Big Sagebrush (*A. tridentata var. wyomingensis*), Black Greasewood (*Sarcobatus vermiculatis*), and Shadscale (*Atriplex confertifolia*). Perennial grasses are likely sparse but would include Indian ricegrass (*Achnatherum hymenoides*), Squirreltail (*Elymus elymoides*), and Bluegrass (*Poa secunda*).

2. Herbaceous communities

A. Intermountain Basins Semi-Desert Grassland

This type is dominated by native perennial grasses including Indian ricegrass (*Achnatherum hymenoides)* and Needle-and-Thread (*Hesperostipa comata*)

B. Invasive Annual Grassland

This type is dominated by exotic annual grasses such as Cheatgrass (*Bromus tectorum*).

C. Introduced Perennial Grassland

This type consists of perennial grasses of non-native origin, including Crested Wheatgrass (*Agropyron cristatum*), Intermediate Wheatgrass (*Thinopyrum intermedium*), Smooth Brome (*Bromus inermis*) and Kentucky Bluegrass (*Poa pratensis*).

D. Invasive Annual and Biennial Forbland

This type consists of non-native annual and biennial forb-dominated sites that do not have a significant component of exotic grasses. Common dominants include: *Halogeton glomeratus, Kochia scoparia*, and Russian Thistle (*Salsola kali*).

3. Riparian/Wetland

This group consists of vegetation associated with perennial or ephemeral available surface water. Moisture may be provided by flowing water associated with rivers and streams (riparian) or where water flows very slowly such as marshes. Dominant vegetation can be woodlands, shrublands, or herbaceous plants.

A. Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland

This vegetation type is found within drainages in mountain ranges of the Great Basin. It is quite variable depending upon elevation, stream gradient, floodplain width, and flooding regime. A mosaic of different types may be present. Tree species may dominate, and shrubs and herbaceous species are generally abundant. Aspen (*Populus tremuloides*) may be present as well as broadleaf deciduous, namely Willow (*Salix spp*.), Cottonwood (*Populus angustifolia*, *P. balsamifera*, and *P. fremontii),* and Water Birch (*Betula occidentalis*). Common shrub species include Willow (*Salix spp*.), Dogwood (*Cornus sericea*), and Silver Sagebrush (*Artemesia cana*). The herbaceous component generally consists of graminoids including Sedge (*Carex spp*.), Rush (*Juncus spp.),* Tufted Hairgrass (*Deschampsia cespitosa*), and Slender Wheatgrass (*Elymus trachycaulus*). Common forbs include Western Blue Flag (*Iris missouriensis*), False Solomon's Seal (*Maianthemum stellatum*) and Meadow-Rue (*Thalictrum fendleri*).

4. Aspen Forest Community

The major important forest species is Aspen (*Populus tremuloides*) and may contain herbaceous species or shrubs such as Snowberry (*Symphoricarpos spp*.) or Serviceberry (*Amelanchier utahensis)*

5. Non-Vegetated

These areas within the fire perimeter include rock out croppings, rock faces and barren soil.

Invasive Species and Noxious Weeds

Many non-native invasive plants and noxious weeds are widespread throughout this sub-region of the state. The Taylor Fire has set back the successional processes of many mid to late seral plant communities and provided a window of opportunity for the further encroachment of non-native invasive plants, such as cheatgrass (*Bromus tectorum*). Cheatgrass has steadily increased its hold on western rangelands over the past several decades. A highly aggressive competitor, this annual species may occupy many more thousands of acres of Nevada rangelands unless native communities are maintained through protective vegetative treatments. Cheatgrass dominated communities have shallow root systems that increase erosion potential and decrease watershed health and function; provide low nutritional value for wildlife and domestic livestock; negatively impact critical habitat; and create areas of fine flashy fuels that increase fire frequencies. State listed noxious weeds of concern within the fire area include Bull Thistle, Canada Thistle, Musk Thistle, Hoary Cress, and Knapweed, all of which are known to increase following disturbance such as fire.

E. WILDLIFE

Wildlife (Aquatic)

Habitat for aquatic wildlife species occurs within and adjacent to the burn perimeter. Streams or riparian habitats either within or adjacent to the burn support special status fish and amphibian species (refer to the discussion on special status species). Several drainages affected by the fire drain into Taylor Canyon Creek which also supports brook trout (*Salvelinus fontinalis)*. None of the aquatic wildlife species habitats in or near the burn are located on public lands.

Wildlife (Terrestrial)

Mule Deer – (Elko RMP-featured species)

The affected area provides mule deer summer range and crucial winter range (November 16-March 14). The availability of crucial winter range is a critical limiting factor for the affected mule deer herd when considering that over 90% has been affected by large scale wildfires in recent years including wildfires in 2006.

Other Game and Non-Game Wildlife Species

Collectively, more than 250 wildlife species could utilize suitable habitat on the affected area on a seasonal or yearlong basis. There are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found in sagebrush habitats on the allotment with many more additional species also found in the vicinity of riparian and meadow habitats on a seasonal or yearlong basis. The area provides habitat for many of these species. Some of these species are shown for the "Lower Sagebrush/Grassland Steppe - Northeastern Nevada" in Appendix 3 while others are shown/duplicated in Nevada Partners in Flight Bird Conservation Plan (Appendix 1) per affected habitat type. For more complete lists, consult the BLM Nevada Elko District Bird, Mammal, and Reptile and Amphibian Lists available through BLM Elko Field Office.

F. MIGRATORY BIRDS

The proposed stabilization and rehabilitation actions are primarily located on areas characterized by the following vegetation types: basin and mountain big sagebrush, low, big sagebrush-bitterbrush, and mountain shrub ("montane shrub"). Areas with Wyoming big sagebrush also exist. These areas provide foraging areas and cover diversity for migratory birds. Some areas have a mottling of these vegetation types interspersed with loamy bottom ephemeral drainages, meadows and riparian habitat. Scattered stands and isolated serviceberry plants were also affected as part of collective mountain shrub areas. Antelope bitterbrush is present throughout the burn area on public lands.

On January 11, 2001 President Clinton signed the Migratory Bird Executive Order. Please see Appendix A for scope of this executive order and applicable species shown for affected habitat type listed above per 1999 Nevada Partners in Flight Bird Conservation Plan.

Maintaining complete, diverse sagebrush communities is integral to conservation efforts for these species. Wyoming and basin big sagebrush vegetation types generally do not naturally respond well to complete loss over thousands of acres in block burn configurations, such as large areas observed on the burn, where only relatively small intact stands still exist. Basin big sagebrush seed banks (viable residual seed dispersed last fall and winter) were likely lost in many areas as a result of the fire within the large blocks, particularly, those areas that burned with moderate intensities. Wyoming big sagebrush seed banks usually do not persist after a given summer following previous fall through spring seed dispersal in unburned areas, let alone burned areas. Mountain big sagebrush seed can potentially remain viable for several years as part of plant litter. However, it is unknown if viable mountain big sagebrush seed remains on affected areas. Many areas burned at moderate soil burn severity. Ground tours confirm that ground litter was burned on mountain big sagebrush sites. Overall, big sagebrush natural recruitment would be slow from intact stands without rehabilitation.

G. SPECIAL STATUS SPECIES

Aquatic Species
Habitat for redband trout (*Oncorhynchus mykiss newberrii)*, a Nevada State and BLM sensitive species occurs in the creek in Taylor and Water Pipe Canyon Creeks.

Historical data indicated the area supported Columbia spotted frogs (*Rana luteiventris)*. Current records show one confirmed location within the Taylor fire perimeter. The spotted frog is identified as a candidate species for listing under the Endangered Species Act (ESA).

Terrestrial Species
The area provides habitat for terrestrial wildlife species designated as Special Status Species including 24 species designated as Nevada BLM Sensitive Species. Please see Appendix 2 for a list of these species. Nevada BLM policy is to provide Nevada BLM Sensitive Species with the same level of protection as is provided for candidate species in BLM Manual 6840.06C. The BLM's Special Status Species Policy (6840) states that, "…the BLM shall implement management plans that conserve candidate species and their habitats and shall ensure that actions authorized, funded, or carried out by BLM do not contribute to the need for the species to become listed" (section 6840.06C). The policy also states that …"the protection provided by the policy for candidate species shall be used as the minimum level of protection for BLM sensitive species" (section 6840.06E).

Greater Sage Grouse - Resource Management Plan (RMP)-featured species
Greater Sage grouse were designated as a BLM Sensitive Species by the Nevada BLM State Director in 1997. Concerns about greater sage grouse populations and habitat resulted in the Nevada State Governor's Final 2001 Nevada Sage Grouse Conservation Strategy (State Strategy). The Northeastern Nevada Stewardship Group Inc. (NNSG) was tasked with completing the June 2004 Elko County Sagebrush Ecosystem Conservation Strategy (Elko Strategy) as part of this overall State Strategy.

The burned area is within the Tuscarora Sage Grouse Population Management Unit (PMU) in Northeastern Nevada considered under the Elko Strategy by the NNSG. The PMU was designated as the one under the Elko Strategy with the "highest risk." This can be interpreted, in effect, that risks to populations and habitat warranted the top priority for conservation measures to improve population levels and habitat conditions.

One primary concern for sage grouse are wildland fires that result in the complete loss of habitat over thousands of acres. Rehabilitation of sage grouse habitat and the prevention of invasion by fire prone annual weeds is a wildlife management priority of both NDOW and BLM.

The Nevada Steering Committee for the Intermountain West Joint Venture (IWJV) has designated sagebrush habitats as "Priority A" (high rating) for management due, in part, to potential high species diversity, the number of species of concern and the potential to be negatively impacted by wildfires. In Nevada, the IWJV is a group comprised of State and Federal agencies, scientists, non-profit organizations, and individuals.

The 1999 Nevada Partners In Flight (PIF) has recognized the importance of intact sagebrush habitats for sage grouse and other avian Special Status Species. The area affected by the Taylor Fire provides habitat for sage grouse needed to sustain populations on a yearlong basis. This includes lek-associated nesting and early (upland) brood-rearing habitat, summer and late (meadow/riparian areas) brood-rearing habitat, and fall/winter habitat. All portions of the burn areas collectively provided sage grouse habitat. The populations that utilize the burn area are associated with a a large complex of leks (breeding display sites) and individual leks just south to southeast of the burn in the vicinity of Taylor Canyon and "Taylor Summit."

Yellow billed Cuckoo – Yellow billed Cuckoo have the potential to inhabit riparian areas such as the ones present within the burn perimeter. However, no documented sightings have occurred in this area.

Pygmy rabbits – Pygmy rabbits are a BLM Sensitive Species petitioned for listing as threatened or endangered under the Endangered Species Act of 1973. On May 20, 2005, the U.S. Fish and Wildlife Service announced a 90-Day Finding in the Federal Register indicating that, "… the petition does not provide substantial information indicating that listing the pygmy rabbit may be warranted.

The Finding does not downplay the need to conserve, enhance or protect pygmy rabbit habitat. They have been documented on the affected burn area.

Pygmy rabbits are found in various vegetation types that include big sagebrush that are suitable for creating their burrow system. Observations in Nevada have been made over broad areas including those characterized by the mountain, basin and Wyoming big sagebrush vegetation types and the big sagebrush-bitterbrush vegetation type. These vegetation types were affected by the fire. Relative to the affected area, the highest likelihood of occurrence would be on sites that support big sagebrush that may be associated with meadows or former meadows or areas directly adjoining these areas.

H. RECREATION

No developed recreation sites occur within the burned areas. Opportunities for dispersed, primitive and unconfined forms of recreation within areas affected by the fires are outstanding. Primary forms of recreation in the burned area include hunting, heritage tourism, hiking and off-highway vehicle touring.

Casual Off-Highway Vehicle use occurs throughout the fire. This Off-Highway Vehicle use occurs on a network of existing designated and undesignated routes, tracks, trails and washes in addition to some cross country travel. Off-Highway Vehicle use is associated with a variety of other recreation uses including hunting, heritage tourism, and sight seeing. Big game hunting in the fall is the primary hunting use within the burned area.

I. NATIVE AMERICAN CONSULTATION

Federal legislation and executive orders dictate that federal agencies must consider the repercussion of their actions when Native American traditional, cultural, and spiritual practices and associated sites are known to exist. Therefore, the BLM must make efforts to identify locations having traditional cultural or religious values to Native Americans and insure that Emergency Stabilization/Rehabilitation projects do not unduly or unnecessarily burden the pursuit of traditional religion or life ways by inadvertently damaging important locations or hinder access to them.

The Western Shoshone and possibly the Northern Paiute originally occupied those locations near and within the Winters Fire Burn. Across northern Nevada, resources, sites and social practices of importance include, but are not limited to: Existing antelope traps; certain mountain tops used for prayer; medicinal and edible plant gathering locations; prehistoric and historic village sites and gravesites; sites associated with creation stories; hot and cold springs; material used for basketry and cradle board making; locations of stone tools such as points and grinding stones (mono and matate); chert and obsidian quarries; hunting sites; sweat lodge locations; locations of pine nut ceremonies, traditional gathering, and camping; boulders used for offerings and medicine gathering; tribally identified Traditional Cultural Properties (TCP's); TCP's found eligible to the National Register of Historic Places; rock shelters; "rock art" locations; lands that are near, within, or bordering current reservation boundaries; water sources (hot and cold springs, etc) in general that appear to be considered the "life blood of the Earth and all who dwell upon it."

For this specific location, possibly due to the remoteness of the area, there have been few cultural inventories completed and opportunities to consult with the local tribes and bands, concerning cultural and spiritual properties, have been limited. Records or past documentation of spiritual/traditional use areas within the Winters Fire boundary are limited. Therefore, it is strongly suggested that an initiation of consultation with the local tribes and bands be implemented in order to acquire an updated and accurate location of any existing culturally important areas, on a project specific basis.

J. VISUAL RESOURCE QUALITY

The Visual Resource Management (VRM) inventory process considers the scenic value of the landscape, viewer sensitivity to the scenery and distance of the viewer to the subject landscape. These management classes identify various permissible levels of landscape alteration, while protecting the overall visual quality of the region. Management classes are divided into four levels (Class I, II, III and IV), with Class I designated as being most protective of visual resources. The Taylor Fire contains Class III and Class IV areas, described below.

The Class III VRM objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the landscape. Changes caused by management activities may be evident and begin to attract attention, but these changes should remain subordinate to the existing landscape. Approximately 1,616 acres of the fire is located in Class III.

The Class IV VRM objective is to allow for management activities that involve major modification of the existing character of the landscape. The level of contrast can be high dominating the landscape and the focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of the characteristic landscape. The remaining 2,898 acres of the fire area has been designated as Class IV.

K. RANGE

Consultation with staff from BLM Elko Field Office was conducted on range management issues. The following table lists the allotments, AUMs, and fire impacts to the resources. Rangeland management staff provided the data for permittees and permitted AUMS impacted. Many of the permitted AUM's are potentially impacted due to the extent of the burns and existing rangeland projects, i.e., fencing and water sources. A meeting was held on August 11, 2006 to invite permittees to express concerns and listen to assessments by the BAER team and programs for private landowners administered by the NRCS.

Table 2. Taylor Fire Range Allotments

Allotment	Permittee	% of Allotment burned (Estimated[2,3])	Allotment Acres Burned	Permitted AUMs[1]

Taylor Canyon	James J. Wright Ranches, Inc.	14 %	132
Eagle Rock	Van Norman Ranches, Inc.	92 %	35
			167

[1]Total AUMs for the allotment; does not indicate AUMs affected by the fire.
[2] This is the percent of the allotment area within the fire perimeter that burned. Burn intensity and severity varies widely
[3] Rough estimates; will be analyzed through GIS but separately from this plan due to time and resource constraints.

CHAPTER 4.0 – Environmental Consequences

The DOI BAER Team has reviewed appropriate physical and biological resources in the proposed project areas. As part of the design process and environmental evaluation, we considered whether the impacts on physical and biological resources would have subsequent economic and social effects.

The following critical elements of the environment are either not present or not impacted by the proposed action: Farmland, Waste, Hazardous or solid, Wild and Scenic River, Environmental Justice and Noxious Weeds.

The following discussion analyzes the potential impacts on the twelve (11) major issues: 1.) Soils, 2.) Air Quality, 3.) Watershed/Hydrology, 4.) Vegetation, 5.) Wildlife, 6.) Migratory Birds, 7.) Special Status Species, 8.) Recreation, 9) Native American Consultation, 10.) Visual Resource Quality and 11.) Range Management.

A. SOILS

Alternative I - No Action
There may be an adverse, moderate short-term effect on soils with moderate to high soil burn severity from increased erosion; particularly in Starvation Canyon, where although the burn severity was only moderate, the potential for soil erosion on the steep slopes is considered severe. There is also a potential for rock fall from the steeper canyon sides adjacent to Highway 226.

Alternative II - Proposed Alternative
Posting of signs along Highway 226, where the fire burned the steep slopes immediately adjacent to the highway will help warn motorists of hazardous conditions from rock fall or potential debris flows, potentially preventing accidents or saving lives.

Implementation of the management recommendations would speed up the revegetation process through rest from grazing for a minimum of two growing seasons. Successful revegetation would facilitate soil stabilization of exposed burned soils.

Herbicide applications may produce short-term adverse impacts to microorganism populations in the soil immediately after application. However, these impacts are anticipated to be short-lived, while the benefits to soils from establishment of native or desired plant communities would be long-term.

B. AIR QUALITY

Alternative I - No Action
Since much of the protective vegetative cover has been denuded there may be adverse effects to air quality and visibility due to increased particulate matter (PM_{10}) from wind-blown dust and ash. Localized blowing ash and soil would occur until the burned soil surface receives enough soil moisture to prevent it from blowing, a physical soil crust forms, or vegetation is reestablished. There would not be any additional soil disturbance from fire rehabilitation treatments, so no additional fugitive dust emissions would occur. However, without any seedings or livestock closure, the burned area is more likely to revegetate with undesirable species which won't

stabilize the soil as well as seeded species, and would subject the area to further blowing dust.

Alternative II - Proposed Alternative
Localized blowing ash and soil would occur until the burned soil surface receives enough soil moisture to prevent it from blowing, a physical soil crust forms, or vegetation is reestablished. Treatments which disturb the soil surface would generate dust during implementation. Livestock closure and noxious weed treatments would speed up the revegetation of desirable species, capable of minimizing fugitive dust emissions. Based on previous experience within the Elko District area, regarding highway safety issues related to dust and visibility, hazard signs were immediately posted along the Highway to warn motorists of hazardous conditions.

C. WATER QUALITY

Alternative I - No Action
Surface Water
The no action alternative is not expected to impact surface water quality.

Wetlands/Riparian Zones/Floodplains
The no action alternative could negatively impact wetlands and riparian zones. Invasive weeds would likely invade wetland and riparian areas, replacing native vegetation and resulting in more easily erodible stream channel banks and floodplains.

Alternative II - Proposed Action
Surface
Placement of rock fall warning signs will have no impact on water quality. Proposed herbicide treatments have the potential to impact surface water quality if chemicals leach through soils or are applied near streams. Adherence to standard operating procedures as outlined in the Programmatic Environmental Assessment of Integrated Weed Management on BLM Lands, BLM/EK/PL-98-008 would minimize any potential for water quality impacts from chemical treatments.

Wetlands/Riparian Zones/Floodplains
Closing burned areas to livestock grazing until these areas can recover will benefit wetland and riparian areas by allowing for growth and establishment of riparian plant communities. Placement of rock fall warning signs will have no impact on wetlands, riparian zones or floodplains.

D. VEGETATION

Alternative I - No Action
The no action alternative could be quite variable to the vegetation resources of the project area. Short term recovery would not occur without seeding the moderate to high burn severity acres of the sagebrush dominated communities and semi-desert grasslands.

In sites that are in early or mid–seral condition, with a few perennial grasses, the chances are high that the burned area could become dominated by cheatgrass. In light of increased fire activity and the competitive nature of cheatgrass, the shrub component would likely be slow to reestablish, if it were to recover at all. Once a site becomes dominated by cheatgrass, it would be difficult and expensive to alter the vegetation to a perennial grass dominated community.

Alternative II - Proposed Action
The proposed action would include the detection and control of non-native plants with approved herbicides. The establishment of native perennial grasses and forbs would benefit the understory, out compete non-native annuals and create a more fire adapted ecosystem that is resilient to disturbance and thereby improve the Fire Regime Condition Class.

E. WILDLIFE

Alternative I - No Action
There may be positive short-term benefits due to potential increasing herbaceous vegetation densities in these areas that may improve habitat for those avian and mammalian wildlife (e.g. Western meadowlarks and horned larks) that seasonally seek more "open" habitat areas with either no shrub cover, or isolated to scattered shrub cover. However, this may be a negative aspect in the long-term due to shrub losses involving catastrophic fire as these same wildlife species require areas with more uniform shrub cover on a seasonal basis during their life cycles. The loss of browse species could affect the mule deer population's survival rate, since surrounding areas contains thousands of acres of fire-affected intermediate range (spring and fall) and crucial winter habitat.

Per the U.S Forest Service's Fire Effects Information System, affected sagebrush species such as basin and mountain big sagebrush are readily killed by fire when above ground plant parts are charred by fire. Sagebrush foliage exposed to temperatures above 195 degrees Fahrenheit (90^{o}C) for longer than 30 seconds results in plant death. Loss of this live vegetation means long term loss of seed sources. Basin and mountain big sagebrush seed could persist over a year in the plant litter layer with or without fire effects. However, it is unknown as to what percent of seed has survived with survival potentially limited by any fire effects associated with moderate fire severities. Shrub composition potentially affected for the long term without rehabilitation efforts include a variety of low and big sagebrush species and antelope bitterbrush. The potential for bitterbrush re-sprouting, or natural recruitment from rodent seed caches (primary bitterbrush recruitment medium), is unknown within any areas that have poor form class (altered seed production) and/or exposed to moderate burn severities on affected sites.

Other impacts resulting from the No Action Alternative would include the spread of annuals, such as cheatgrass, and nonnative invasive species, such as Scotch thistle and hoary cress. These species are already present and would continue to increase in density. The burned area would not be closed to grazing, which would not allow desirable plant species time to reestablish. It would also allow for other nonnative invasive plant species that are transported on sites by vehicles, animals or by wind to gain a niche to get established. This would have an adverse affect on native species by not allowing their preferred habitat to re-establish.

Alternative II - Proposed Action
The direct impacts to wildlife are the loss of habitat, including forage and cover. The temporary loss, and sometimes long term or permanent loss, of cover and forage winter big game range is a critical limiting factor for affected mule deer herd. As described in the impacts to migratory birds, the greatest threat to these sagebrush-dependent wildlife species is type conversion of sagebrush communities to non-native species. Maintaining complete, diverse sagebrush communities is integral to conservation efforts for these species. The proposed seed mixtures for emergency stabilization and rehabilitation and for rehabilitation would help to provide cover and forage for wildlife species and help to minimize establishment of noxious weeds, and exotic annual plants such as cheatgrass. The Proposed Action would also allow for any natural reestablishment of shrubs on the burned area.

F. MIGRATORY BIRDS

Alternative I - No Action
Impacts to fire-affected habitat resulting from the No Action Alternative are similar to those described for wildlife species in Wildlife subsection shown above. This would include the spread of annuals, such as cheatgrass, and nonnative invasive species, such as the Scotch thistle and hoary cress. These species are already present and would continue to increase in density. The burned area would not be closed to grazing, which would not allow desirable plant species time to reestablish. It would also allow for other nonnative invasive plant species that are transported on

vehicles to gain a niche to get established. This would have an adverse affect on native species by not allowing their preferred habitat to re-establish.

Alternative II - Proposed Action
No adverse impacts have been identified as a result of the implementation of the proposed action. The greatest threat to these sagebrush-dependent migratory bird species is type conversion of sagebrush communities. Maintaining complete, diverse sagebrush communities is integral to conservation efforts for these species. Basin and mountain big sagebrush was negatively impacted by the fire. Basin big sagebrush vegetation types generally do not naturally respond well to complete loss in block-burn configurations, such as large areas observed on the burn, where only relatively small intact stands still exist. Basin big sagebrush and mountain big sagebrush seed banks (viable residual seed dispersed last fall and winter) were likely lost as a result of the fire. Recruitment would be slow from intact stands without rehabilitation.

The proposed seed mixtures would help to provide wildlife cover and forage and help to minimize establishment of exotic annual plants such as cheatgrass. This mixture would also help allow for any natural reestablishment of shrubs on the burned area. The seeding proposals should provide beneficial impacts to migratory bird species by restoring habitat and is consistent with the conservation measures listed in Section 3(e) of the President's Migratory Bird Executive Order.

G. SPECIAL STATUS SPECIES

Alternative I - No Action
If no action were to occur within the burned area, potential impacts to special status species could include permanent loss of habitat due to vegetation type-conversion or other ecosystem shifts; abandonment of habitat in the burned area; decreased reproductive rates due to insufficient food, water, or shelter and/or nutritional deficiencies; mortalities; altered foraging and breeding habits; and easier acquisition of food sources due to decreases in escape cover (particularly for raptors). The potential exists for accelerated erosion to occur within the burned area, which would result in loss of habitat quality for spotted frogs and redband trout through increases in sediment and ash loading from the burned watershed. Higher sediment loads can lead to channel downcutting and and mortality to some of the fish population resulting in reduced fish production.

Until the establishment of a shrub component into the vegetation community, wildlife would continue to lack a vegetative cover as a component of the habitat. The loss of browse species could affect the mule deer population's survival rate, since this area contains crucial winter habitat. Sage grouse populations will continue to decline without reestablishment of the sagebrush component, potentially leading to listing under the Endangered Species Act.

Alternative II - Proposed Alternative
Removal of livestock from the burned areas as soon as possible will allow protective buffers along drainages to remain in place. These buffers include corridors of willow and herbaceous vegetation which serve to protect streambanks from erosion and filter ash and sediment from adjacent burned areas. Sediment and ash have the potential to clog fish gills, raise water temperatures and pH levels, kill invertebrates, reduce fish spawning habitat and degrade overall water quality for aquatic wildlife species including spotted frogs. Limited protective riparian buffers exist along perennial drainages adjacent to or within portions of the burn area.

Closure of burned areas to livestock grazing will allow for growth and establishment of riparian vegetation along drainages with persistent water. Establishment of healthy riparian zones will maintain water quality for the benefit of aquatic wildlife species including special status species. Rest from grazing will also allow increase likelihood of successful revegetation of uplands either naturally or from seeding, reducing sediment input to streams from uplands.

Fence repair and construction where necessary to control livestock will benefit aquatic wildlife

species by allowing for growth and establishment of riparian vegetation along drainages during the post-fire recovery period.

Although the suspected causes of sage grouse decline are numerous, loss of habitat, including loss by fire, ranks at the top of the list. As described in the impacts to migratory birds, the greatest threat to these sagebrush-dependent species is type conversion of sagebrush communities. Maintaining complete, diverse sagebrush communities is integral to conservation efforts for these species. The proposed seed mixtures for emergency stabilization and for rehabilitation would help to provide cover and forage for sage grouse, mammals and perching birds as well as that for prey species of Special Status Species raptors and bats, and help to minimize establishment of noxious weeds, and exotic annual plants such as cheatgrass. The Proposed Action would also allow for any natural reestablishment of shrubs on the burned area.

H. RECREATION

Alternative I - No Action
Under the no action alternative recreational pursuits such as wildlife viewing and hunting would be impacted. The loss of habitat in the burned area, if not reseeded, could lead to a permanent long term loss of wildlife species in the area. Proliferation of new routes could occur in the area due to the loss of vegetation.

Alternative II - Proposed Alternative
Under the proposed action recreational pursuits would be restored in the long term. Big Game and game bird habitat would be restored. Rehabilitating dozer lines and generally restoring vegetative cover would reduce the likelihood of creating new routes in the area.

I. NATIVE AMERICAN CONSULTATION

Alternative I - No Action
Under the No Action alternative, possible Native American spiritual sites, ceremonies, or traditional practices may or may not be adversely affected by proposed project activities. For example, certain stabilization/rehabilitation projects may compromise the physical integrity of existing artifacts (such as drill seeding). However, other projects (riparian exclosures, stream bank restoration, etc…) may allow for the recovery of certain edible and medicinal plant locations.

Alternative II - Proposed Alternative
Various tribes and bands of the Western Shoshone have stated that federal projects and land actions can have widespread effects to their culture and religion as they consider the landscape as sacred and as a provider.

Due to the fact that there is limited internal knowledge (BLM) of spiritual or important cultural/traditional use sites in the area, there exists the possibility of land management practices - stabilization and rehabilitation projects - adversely affecting traditional life ways and the integrity of Native American spiritual sites or sites of cultural importance.

J. VISUAL RESOURCE QUALITY

Alternative I - No Action
The no action may cause an increase in non-native vegetation dominance in the burned areas.

Alternative II - Proposed Alternative
This action may improve visual resources through an increase in perennial vegetation and decrease in fire danger and invasive exotic plants.

K. RANGE

Alternative I - No Action
Some un-burned and burned vegetative communities could recover naturally without any proposed treatments. Because of the large size of these fires there will be pressure on un-burned islands from wildlife and livestock since no proposed treatments would allow closure to livestock. If Wild Horses within the burned area are not gathered and relocated, they could cause significant impact on the range resource and possibly starvation of the animals.

Alternative II - Proposed Alternative
The proposed action would have both beneficial and adverse impacts on range resources. Reseeding and natural revegetation would benefit grazing once the seeded areas were sufficiently recovered and the forage base would be improved with herbaceous and palatable/nutritious species. Protective fencing would, in the short term, remove livestock from previously grazed areas, thereby resulting in a reduction of available animal use months (AUM) to livestock, but improve the chance of successful re-vegetation of burned areas.

Livestock grazing will be affected for a long term. Low average annual precipitation results in lengthy recovery time. In many areas, recovery of burned areas would involve a natural vegetation response from seed release of plant species not damaged by wildfire or re-growth from fire. In some areas, seeding would be necessary to meet resource objectives and provide for watershed stabilization. In either case, livestock grazing would need to be deferred to allow for plant re-growth and re-establishment.

Livestock grazing on allotments that are within burned area would be closed for at least 2 years or until establishment criteria are met based on the Standards and Guidelines for Nevada's BLM lands. Specific vegetative objectives would be completed for the areas impacted by fires. Grazing allotment agreements or decisions would be handled on an allotment basis in order to meet vegetative objectives. Grazing may be permitted in order to meet objectives primarily to control and decrease the spread of invasive plant species during the "green up" period. Due to the extent of the fires, the vast variety of vegetative communities and ecological sites, and resource concerns burned, objectives may vary within and between fires.

CHAPTER 5.0 – Cumulative Impact Analysis

All resource values have been evaluated for cumulative impacts. Cumulative effects are the environmental impacts resulting from the incremental impacts of a proposed action, when added to other past, present, and reasonably foreseeable future actions, both federal and nonfederal. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The emergency stabilization and rehabilitation treatments for the Taylor fire, as proposed in this plan, do not result in an intensity of impact (i.e. major ground disturbance, etc.) that would cumulatively constitute a significant impact on the quality of the environment. Cumulative impacts for proposed Emergency Stabilization treatments are discussed and analyzed in the programmatic FY 2000 Normal Fire Rehabilitation Plan Environmental Assessment (NFRPEA) BLM/EK/PL-2000/037, which resulted in a Finding of No Significant Impact. These documents are available for review at the BLM, Elko Field Office. A three year reasonably foreseeable timeframe was used since this is the maximum timeframe allowed for implementation and monitoring of emergency stabilization plans.

The geographic area included in the cumulative impacts assessment is the location of the Taylor Fire for the soil and vegetation resources, and the Taylor Canyon and Eagle Rock Allotments for livestock grazing. The land uses evaluated that may create cumulative impacts to the resource affected by the Taylor Fire, include livestock grazing, mineral exploration, recreation and fire. Livestock grazing, recreation, and fire have occurred for several years in the past to the present, and are expected to occur in the future. The Taylor Fire would be closed to livestock grazing for a minimum of two growing seasons or until vegetation

establishment objectives are met.

Large portions of the wildfires that have occurred in southwestern Elko and Eastern Humboldt Counties from 1984 to 2005 within 20 miles of the Taylor Fire perimeter have been seeded with big sagebrush and at present have various degrees of re-establishment. This has helped provide cover and forage for approximately 200 wildlife species, including mule deer, which utilize sagebrush habitat types on a seasonal or yearlong basis. However, the Taylor Fire has exacerbated the present limited availability of shrub cover on collective intermediate range and migration corridors for the affected mule deer herds. The availability of adequate cover and forage provided by shrubs is presently considered to be a critical limiting factor for the affected mule deer herds when considering the wildfire-affected portions of intermediate range and migration corridor on lands affected by wildland fires to the west,such as 73,077-acre Clover Fire in 1999, 70,910-acre Hot Lake Fire in 2001, the 21,187-acre Buffalo in 2001, the 96,896-acre Esmeralda fire in 2005 and the Winters and Basco fires of 2006. These wildfire burn areas have prior approved emergency stabilization and rehabilitation plans that included big sagebrush seeding efforts that presently provide limited cover and forage as part of mule deer intermediate range and migration corridors.

Although the winter range area was a very small percentage of the overall acreage of the Taylor Fire, there are cumulative effects on the affected mule deer herds because of fires since 1984 within Management Area Six, Units 066, 067 and 068 delineated by the Nevada Department of Wildlife (NDOW). Mule deer numbers are down dramatically from historic numbers for the affected mule deer herd area. Nevada Department of Wildlife noted in their 2004-05 Big Game Status report that, “The carrying capacity of the winter range is now estimated at between 8,000 to 10,000 deer. This is… 65% less than it was 35 to 40 years ago.”

Greater sage grouse populations would continue to decline without reestablishment of the sagebrush component, potentially leading to listing under the Endangered Species Act. The stabilization and rehabilitation actions taking place on the various fires throughout the area are helping to slow this population loss but the fact that the fires have removed sagebrush in vast adjacent areas has negatively affected sage grouse and may continue to do so into the future.

Impacts to wildlife include, but are not limited, to the loss or alteration of forage and cover, wildlife may be displaced and avoid areas once inhabited due to the loss or alteration of forage and cover, migration routes may shift.

Within the fire perimeter impacts to vegetation and soils have occurred in the past and present from livestock grazing, mineral exploration, recreation, and fire. Surface disturbance within and adjacent to the burn area have been created by the installation of fences and range improvements that are associated with livestock grazing. Mineral exploration for locatable minerals has occurred over the past several years within the fire perimeter.

The Taylor Fire occurred in the area between 2 mining districts: Independence Mountains and Merrimac. The Tuscarora mining district is located to the west. Exploration and mining activities have occurred in this area for several years in the past and exploration has continued to the present. Currently, the area is not being mined. The area is undergoing mineral exploration. The exploration that is occurring is permitted under a plan of operations (surface disturbance greater than 5 acres). Exploration activities consist of road construction and drilling (drill pad and sump). Some exploration activities have been reclaimed. Reclamation consists of recontouring and seeding. The exploration activities in the area would continue into the future beyond the 3 year time period for the implementation of the ES and BAR plans. Some exploration activities may or may not be reclaimed within this in this time period.

Roads have been created within and adjacent to the burn area that are associated with various activities such as, but not limited to, access for range improvements, mineral exploration, recreation, and fire suppression activities. Dozerlines have been created and used in the fire suppression tactics. Soil disturbing activities can cause changes to soil characteristics, such as pulverization or mixing of soil

layers, removal of soil either by wind or water erosion, and composition changes when soils become hydrophobic as a result of heat from fires. Changes in the soil characteristics can result in changes to vegetation types and communities as well as changes to runoff and erosion rates. Cumulative impacts to soils may be short term, lasting until soil crusts or vegetation reestablishment occurs or long term due to physical changes and natural elements, such as weathering and erosion.

Cumulative impacts to vegetation can include changes in vegetation types and communities. Establishment of nonnative invasive plant or noxious weed species or annuals, such as cheatgrass, can change the characteristics of a vegetation type or community by replacing and eliminating native species from the plant community. Changes in vegetation type and plant communities can result in other impacts such as the loss of vegetation for livestock grazing; loss or alteration of habitat, including forage and cover for wildlife; and the lack of plant diversity and age classification, which may also increase due to wildland fires.

According to the 2004 Fire Management Amendment to the Elko and Wells Resource Management Plans, the Elko District has experienced large fires over the last 5 years (1999-2003) with 1999 being the most active year. Annual changes in fire occurrence consist of factors such as fuel loads, change in vegetation, and climatic conditions. Wildland fire ignitions are primarily the result of lightning strikes but may also be caused by humans. Wildland fire may impact soils dependant upon the temperatures of the fire. Soils may burn or become hydrophobic. The primary resource impacted by wildland fires is to vegetation. Impacts to vegetation are also dependant upon the temperatures of the fire, which are relative to several factors such as fuel types. Impacts may include, but are not limited to, changes in successional stages of vegetation communities, alteration of habitats for wildlife, and modification of fuel loading.

CHAPTER 6.0 – Consultation and Coordination

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APPENDIX A
Migratory Birds

On January 11, 2001, President Clinton signed the Migratory Bird Executive Order 13186. This Executive Order outlines the responsibilities of federal agencies to protect migratory birds. The United States has recognized their ecological and economic value to this country and other countries by ratifying international, bilateral conventions for the conservation of migratory birds. These migratory bird conventions impose substantive obligations on the United States for conservation of migratory birds and their habitats. The United States has implemented these migratory bird conventions through the Migratory Bird Treaty Act. President Clinton's Migratory Bird Executive Order directs executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act. As defined in the executive order, "action" means a program, activity, project, official policy (such as a rule or regulation), or formal plan directly carried out by a federal agency. The executive order further states that each Federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations is directed to develop and implement, within 2 years, a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service that shall promote conservation of migratory bird populations. The term "action" will be further defined in this MOU as it pertains to each federal agency's own authorities and programs.

A list of the migratory birds affected by the President's executive order is contained in 43 CFR 10.13. References to "species of concern" pertain to those species listed in the periodic report "Migratory Nongame Birds of Management Concern in the United States;" priority migratory bird species as documented by established plans, such as Bird Conservation Regions in the North American Bird Conservation Initiative or Partners in Flight physiographic areas; and those species listed in 50 CFR 17.11. The 1999 Nevada Partners in Flight Bird Conservation Plan identifies the following bird species for prioritization for management action associated the wild horse herd areas, as listed by habitat type in the following table.

Migratory Birds by Habitat Type

Sagebrush	Montane Riparian	Montane Shrub	Cliffs and Talus	Aspen
Obligates: Sage Grouse Other: Black Rosy Finch Ferruginous Hawk Gray Flycatcher Loggerhead Shrike Vesper Sparrow Prairie Falcon Sage Sparrow Sage Thrasher Swainson's Hawk Burrowing Owl Calliope Hummingbird Other associated species: Brewer's Sparrow Western Meadowlark Black-throated Sparrow Lark Sparrow Green-tailed Towhee Brewer's Blackbird Horned Lark Lark Sparrow	Obligates: Wilson's Warbler MacGillivray's Warbler Other: Cooper's Hawk Northern Goshawk Calliope Hummingbird Lewis's Woodpecker Red-Naped Sapsucker Orange-crowned Warbler Virginia's Warbler Yellow-breasted Chat **Other Associated Species** Warbling Vireo Broad-tailed Hummingbird Fox Sparrow Blue Grouse	Obligates: None Other: Black Rosy Finch Black-throated Gray Warbler Calliope Hummingbird Cooper's Hawk Loggerhead Shrike Blue Grosbeak Vesper Sparrow MacGillivray's Warbler Orange-crowned Warbler Swainson's Hawk Western Bluebird	Obligates: Prairie Falcon Black Rosy Finch Other: Ferruginous Hawk **Other Associated Species** Golden Eagle White-throated Swift Say's Phoebe Common Raven Cliff Swallow Violet-green Swallow Canyon Wren Rock Wren	Obligates*: None Other**: Northern Goshawk Calliope Hummingbird Flammulated Owl Lewis's Woodpecker Red-naped Sapsucker Mountain Bluebird Orange-crowned Warbler MacGillivray's Warbler Wilson's Warbler **Other Associated Species** Cooper's Hawk Northern Flicker Hermit Thrush Yellow-rumped Warbler Long-eared Owl

* "Obligates" are species that are found only in the habitat type described in the section. [Habitat needed during life cycle even though a significant portion of their life cycle is supported by other habitat types]

** "Other" are species that can be found in the habitat type described the Nevada Partners in Flight Bird Conservation Plan

Appendix B
BLM Special Status Species

Definitions of Special Status Species:

Federally Threatened or Endangered Species: Any species that the U.S. Fish and Wildlife Service has listed as an endangered or threatened species under the Endangered Species Act throughout all or a significant portion of its range.

Proposed Threatened or Endangered Species: Any species that the Fish and Wildlife Service has proposed for listing as a Federally endangered or threatened species under the Endangered Species Act.

Candidate Species: Plant and animal taxa that are under consideration for possible listing as threatened or endangered under the Endangered Species Act.

BLM Sensitive Species: Species 1) that are currently under status review by the U.S. Fish and Wildlife Service, 2) whose numbers are declining so rapidly that Federal listing may become necessary; 3) with typically small and widely dispersed populations; or 4) that inhabit ecological refugia or other specialized or unique habitats.

State of Nevada Listed Species: State-protected animals that have been determined to meet BLM's Manual 6840 policy definition.

The listing of Nevada BLM Special Status Species is based on input provided by BLM, Nevada Department of Wildlife, and U.S. Fish and Wildlife Service in BLM Instruction Memorandum No. NV-2003-097 (July 29, 2003).
The effects of a proposed action on species that are listed or are proposed for listing as threatened or endangered are subject to consultation under section 7 of the ESA.

Nevada BLM policy is to provide State of Nevada Listed Species and Nevada BLM Sensitive Species with the same level of protection as is provided for candidate species in BLM Manual 6840.06C. Per wording for Table IIa. in BLM Instruction Memorandum No. NV-98-013, Nevada protected animals that meet BLM's 6840 policy definition are those species of animals occurring on BLM-managed lands in Nevada that are: (1) 'protected" under authority of Nevada Administrative Codes 501.100 - 503.104; (2) have been determined to meet BLM's policy definition of "listing by a State in a category implying potential endangerment or extinction," and (3) are not already included as a federally listed, proposed, or candidate species.

The following table lists the species according to their status that are potentially affected by the proposed action specific to the propose action area.

Appendix B (Cont.)
BLM Special Status Species – Taylor Fire

COMMON NAME	SCIENTIFIC NAME
Federally Endangered Species	
(None)	n/a
Federally Threatened Species	
(None)	*n/a*
Federally Proposed Threatened or Endangered Species	
(none)	n/a
Federal Candidate Species	
Columbia spotted frog	*Rana lutieventris*
Yellow-billed Cuckoo	*Coccyzus americanus*
Nevada BLM Sensitive Species	
Birds	
Golden Eagle	*Aquila chrysaetos*
Burrowing Owl	*Athene cunicularia*
Ferruginous Hawk	*Buteo regalis*
Swainson's Hawk	*Buteo swainsoni*
Northern Goshawk	*Accipiter gentiles*
Greater Sage Grouse	*Centrocercus urophasianus*
Mountain Quail	*Oreortyx pictus*
Loggerhead shrike	*Lanius ludovicianus*
Vesper sparrow	*Poocetes gramineus*
Short-eared owl	*Asio flammeus*
Long-eared owl	*Asio otus*
Prairie falcon	*Falco mexicanus*
Black-rosy finch	*Leucosticte atrata*
Yellow-breasted chat	*Icteria virens*
Lewis' woodpecker	*Melanerpes lewis*

Nevada BLM Sensitive Species (cont.)	
Mammals	
Pygmy rabbit	*Brachylagus idahoensis*
Spotted bat	*Euderma maculatum*
Small-footed myotis	*Myotis ciliolabrum*
Long-eared myotis	*Myotis evotis*
Fringed myotis	*Myotis thysanodes*
Long-legged myotis	*Myotis volans*
Yuma myotis	*Myotis yumanensis*
Pacific Townsend's big-eared bat	*Plecotis townsendii townsendii*
Prebles shrew	*Sorex preblei*

APPENDIX C
Wildlife Species List

Lower Sagebrush/Grassland Steppe, Northeastern Nevada
[Note: This is a partial list emphasizing upland habitat areas]

Birds

Turkey Vulture	*Cathartes aura*
Bald Eagle	*Haliaetus leucocephalus*
Northern Harrier	*Circus cyaneus*
Swainson's Hawk	*Buteo swainsoni*
Red-tailed Hawk	*Buteo jamaicensis*
Ferruginous Hawk	*Buteo regalis*
Rough-legged Hawk	*Buteo lagopus*
Golden Eagle	*Aquila chrysaetos*
American Kestrel	*Falco sparverius*
Merlin	*Falco columbarius*
Prairie Falcon	*Falco mexicanus*
Cray Partridge	*Perdix perdix*
Chukar	*Alectoris chukar*
Sage Grouse	*Centrocercus urophasianus*
Mourning Dove	*Zenaida macroura*
Great Horned Owl	*Bubo virginianus*
Burrowing Owl	*Athene cunicularia*
Short-eared Owl	*Asio flammeus*
Common Nighthawk	*Chordeiles minor*
Broad-tailed Hummingbird	*Selasphorus platycercus*
Northern Flicker	*Colaptes auratus*
Gray Flycatcher	*Epidonax wrightii*
Ash-throated Flycatcher	*Myiarchus cinerascens*
Say's Phoebe	*Sayornis saya*
Western Kingbird	*Tyrannus verticalis*
Horned bark	*Eremophila alpestris*
Barn Swallow	*Hirundo rustica*
Black-billed Magpie	*Pica pica*
American Crow	*Corvus brachyrhynchos*
Common Raven	*Corvus corax*
Rock Wren	*Salpinctes obsoletus*
Mountain Bluebird	*Sialia currucoides*
American Robin	*Turdus migratorius*
Sage Thrasher	*Oreoscoptes montanus*
Loggerhead Shrike	*Lanius ludovicianus*
Northern Shrike	*Lanius excubitor*
European Starling	*Sturnus vulgaris*
Brewer's Sparrow	*Pooecetes gramineus*
Vesper Sparrow	*Chondestes grammacus*
Lark Sparrow	*Amphispiza belli*
White-crowned Sparrow	*Zonotrichia leucophrys*
Lapland Longspur	*Calcarius lapponicus*
Red-winged Blackbird	*Agelaius phoeniceus*
Western Meadowlark	*Sturnella neglecta*
Brewer's Blackbird	*Euphagus cyanocephalus*
Brown-headed Cowbird	*Molothrus ater*
Black Rosy Finch	*Leucosticte atrata*
Gray-crowned Rosy Finch	*Leucosticte tephrocotis*
House Sparrow	*Passer domesticus*

Mammals

Little Brown Bat	*Myotis lucifugus*
Long-eared Myotis	*Myotis evotis*
Long-legged Myotis	*Myotis volans*
Small-footed Myotis	*Myotis ciliolabrum*
Silver-haired Bat	*Lasionycteris noctivagan*
Western Pipistrelle	*Pipistrellus hesperus*
Big Brown Bat	*Eptesicus fuscus*
Townsend's Big-eared Bat	*Plecotus townsendii*
Brazilian Free-tailed Bat	*Tadarida brasiliensis*
Black-tailed Jackrabbit	*Lepus californicus*
Mountain Cottontail	*Sylvilagus nuttal1ii*
Pygmy Rabbit	*Sylvilagus idahoensis*
Townsend's Ground Squirrel	*Spermophilus townsendii*
Belding Ground Squirrel	*Spermophilus be1dingi*
Least Chipmunk	*Tamias minimus*
Botta's Pocket Gopher	*Thomomys bottae*
Northern Pocket Gopher	*Thomomys talpoides*
Little Pocket Mouse	*Perognathus longimembris*
Great Basin Pocket Mouse	*Perognathus parvus*
Dark Kangaroo Mouse	*Microdipodops megacephalus*
Ord Kangaroo Rat	*Dipodomys ordii*
Chisel-toothed Kangaroo Rat	*Dipodomys microps*
Deer Mouse	*Peromyscus maniculatus*
Northern Grasshopper Mouse	*Onychomys leucogaster*
Desert Woodrat	*Neotoma lepida*
Sagebrush Vole	*Lemmiscus curtatus*
House Mouse	*Mus musculus*
Kit Fox	*Vulpes macrotis*
Coyote	*Canis latrans*
Long-tailed Weasel	*Mustela frenata*
Badger	*Taxidea taxus*
Striped Skunk	*Mephitis mephitis*
Mountain Lion	*Felix concolor*
Bobcat	*Lynx rufus*
Mule Deer	*Odocoileus hemionus*
Pronghorn	*Antilocapra americana*

Reptiles

Western Skink	*Eumeces skiltonianus*
Western Whiptail	*Cnemidophorus tigrus*
Desert Collared Lizard	*Crotaphytus insularis*
Long-nosed Leopard Lizard	*Gambelia wislizenii*
Desert Spiny Lizard	*Sceloporus magister*
Sagebrush Lizard	*Sceloporus graciosus*
Western Fence Lizard	*Sceloporus cccidentalis*
Side-blotched Lizard	*Uta stansburiana*
Desert Horned Lizard	*Phrynosorna platyrhinos*
Short-horned Lizard	*Phrynosorna douglassii*
Long-nosed Snake	*Rhinocheilus lecontei*
Ground Snake	*Sonora semiannulata*
Night Snake	*Hypsiglena torquata*
Gopher Snake	*Pituophis melanoleucus*
Racer	*Coluber constrictor*
Striped Whipsnake	*Masticophis taeniatus*
Western Rattlesnake	*Crotalus viridis*